NEWS

Prep[illegible]ness orders for airplane engines speed construction of world's largest windowless factory—see p. 4

Republic Upson quality bolts and nut

help to harness the mighty Missouri at Fort Peck Dam

The group above illustrates a few of the many sizes and shapes of the 20,400 Republic Upson quality items supplied.

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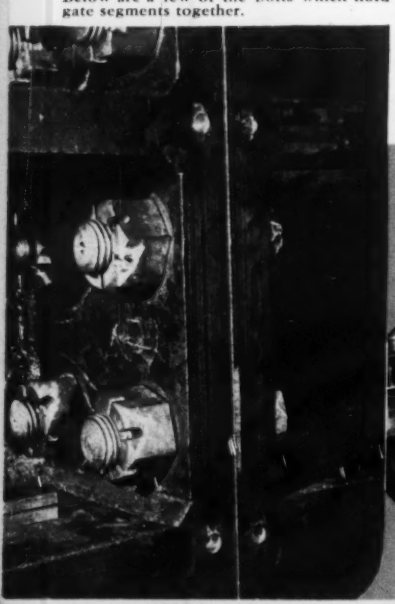
Below are a few of the bolts which hold gate segments together.



On the Missouri River, 20 miles southeast of Glasgow, Montana, Fort Peck Dam — the world's greatest earthfill dam — is under construction. When completed and in operation, Republic Upson quality bolts and nuts will play an important part when this project harnesses the waters of this mighty river.

Inside the control towers of the four mile-long diversion tunnels huge cylindrical gates will move up and down to control water flow. Some 50 feet in diameter, these gates are constructed in six segments, held together securely by Republic Upson quality stainless steel bolts. In all, 20,400 Republic Upson quality items were furnished.

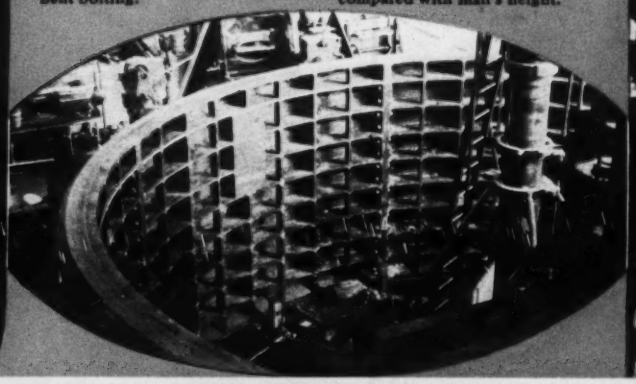
In Fort Peck, Boulder, Grand Coulee and other dams — on the Golden Gate, Brooklyn, Manhattan and other famous bridges — on large and small engineering projects of every kind — you'll find Republic Steel products. Insure years of satisfactory performance for your structures by specifying Republic bars, pipe, plates, sheets, roofing, wire, casing, tubing, bolts and other steel products. Republic Steel Corporation, General Offices: Cleveland, Ohio.

REPUBLIC STEEL
REG. U. S. PAT. OFF.

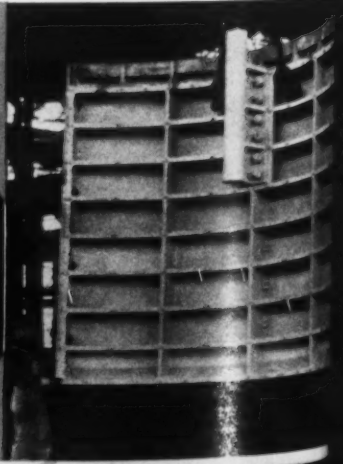
UPSON

BERGER MANUFACTURING DIVISION
UNION DRAWN STEEL DIVISION
NILES STEEL PRODUCTS DIVISION
STEEL AND TUBES, INC.
TRUSCON STEEL COMPANY

Each gate is completely assembled in the shop, inspected and checked, then dismantled and shipped to the dam for final, permanent bolting.



An idea of the size of the control gates may be obtained from the photograph at the right showing one of the six segments for a gate compared with man's height.



ENGINEERING NEWS-RECORD

NEWS

Volume 123 SEPTEMBER 21, 1939 Number 12

NOTEBOOK NEWS

Quick Surveys of Construction Events

▶ A bigger and better Road Show is promised for the highway builders in January at Chicago. War in Europe is not going to interfere as it did in the case of the show of the machine tool industry. In fact, the builders of road equipment hold that a war boom will make it imperative for road engineers and contractors to know what equipment is available to increase the efficiency of their work.

▶ The probable effect of the war on American industries is beginning to show in the Pittsburgh district where steel mills are taking on new men and adding shifts and where expansion plans are being formed.

▶ Across the border in Canada, where a nominal state of war exists, a quick survey of current normal construction shows little evidence of any curtailment of such work to clear the way for war operations.

▶ Bids on Friant Dam, second big dam of the Central Valley project, ranged from $8,715,359 to $12,483,173, a difference of nearly half the low bid.

▶ The President has suggested that Pennsylvania's new toll road from Pittsburgh to Harrisburg be extended to Philadelphia to form an express route from the Pittsburgh steel mills to the Philadelphia navy yard.

▶ Efforts of Secretary Ickes to force San Francisco to go into the business of selling the port from its Hetch Hetchy water supply system received another setback last week when the Circuit Court of Appeals vacated the order of a lower court requiring the city to stop selling the power to the Pacific Gas & Electric Co.

Harris & Ewing

HEADS NAVY CONSTRUCTION

Rear Admiral A. H. Van Keuren Sept. 18 became chief constructor and chief of the bureau of construction and repair, U. S. Navy. He is a graduate of Annapolis with the class of 1903 and succeeds Rear Admiral William G. DuBose, who has been named director of the new ship model testing basin at Carderock, Md.

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President Favors Extension of Pennsylvania Highway

Extension of Pennsylvania's new toll superhighway from its present eastern terminal near Harrisburg to the Philadelphia Navy Yard is favored by President Roosevelt as a military transportation link between the Pittsburgh steel mills and the yard, according to Walter A. Jones, chairman of the Pennsylvania Turnpike Commission who had a conference with the President on Sept. 4. Contractors are now building the Pittsburgh and Harrisburg section.

Jones explained that the commission will continue plans for extension of the highway to Philadelphia, the plans to be presented to the Pennsylvania officials for their consideration.

Chicago Road Show Gets Wide Support

Road builders plan bigger show as an aid to their industry in meeting war emergency

Reporting to the directors of the American Road Builders Association at Detroit, Sept. 13, Charles Upham, director, said that 20 per cent more space than in Cleveland had been requested for the Chicago road show in January by each of the exhibitors already signed up. Enthusiasm was unanimous for a larger exhibit with a convention devoted to education on the normal need for highways as well as the abnormal needs to serve during emergencies such as may develop should the European situation continue and this country's industries be called on for unusual commitments. Mr. Upham reported that many high officials have accepted invitations to address the convention, among them officials from the War Department, PWA and Department of Commerce, also John M. Carmody, Thomas Macdonald, Senator Hayden and Representative Cartwright.

The report of the Public Roads Administration on interregional roads seems to have had few critics, prac-

(Continued on p. 2)

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Work on Kingsley Dam Back on Schedule

Work on Kingsley Dam which was delayed by right-of-way troubles (*ENR* Sept. 7, p. 309) is back on schedule, according to the engineers of the Central Nebraska Public Power and Irrigation District. The railroad company is now running traffic over the relocated line, which it declined to take over until a clear title had been obtained to the right-of-way, and the contractor has been able to occupy the old right-of-way through the dam site.

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PWA Payment Resumed On Alabama Projects

PWA funds again are being paid over to Alabama for its building projects, according to John M. Carmody, Federal Works Administrator. Carmody had stopped payments on eight dormitories and a hospital building because the Alabama legislature had passed the Booth Act, an act requiring public power bodies to buy up existing private electric utilities in the areas which the public agency expected to serve (*ENR*, Sept. 7, p. 313).

Carmody said that he had been informed that both houses of the Alabama legislature had passed a bill which exempted PWA projects from the provisions of the Booth Act, an act which would have prevented PWA's participation in a number of public works projects in the state. He said that the amendatory legislation will remove inhibitions and prevent possible litigation which would have tied up the public works program in Alabama. In view of these circumstances, Mr. Carmody has authorized the PWA to proceed in carrying out its agreements with the local bodies in Alabama.

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Chicago Road Show

(*Continued from p.* 1)

tically all governmental agencies feeling that in addition to the present program of road building there should be additional work to develop adequate highway transportation facilities. Since contractors can count on at least a duplication of this year's program plus something more, the directors were all optimistic as to the impetus given to the show to make it more elaborate and useful than any yet put on.

The decision of the tool makers to cancel their show this year had given rise to rumors of possible abandonment of the Road Show, but the directors did not consider such a possibility. Rather, all indicated strong faith in the timeliness and usefulness of the show this winter to educate the public and public officials as to the place of roads in the transportation system of the country.

Men, not dollars, will be at a premium if the war emergency develops as now seems probable. Drying up of relief rolls should check the trend to diversion of highway funds it was stated. Labor-saving equipment will again be at a premium. The location of highways may be changed for better service to vital industries. Such were the views expressed by leaders in the field. They virtually assure that the road show will be held.

Highway Engineers Meet in Idaho

Montana National Bituminous Conference at Sun Valley attended by 36 men.

About 360 persons, representing 24 states, the District of Columbia and Canada, attended the 1939 Montana National Bituminous Conference last week at Sun Valley, Idaho. Following the opening ceremonies, the subject of highway safety was the theme of the morning meeting on the first day. "Safety on the Highway", a paper by Ralph L. Lee, public relations staff of the General Motors Corp., and "Importance of the Design, Construction and Maintenance of Bituminous Surfaces to National Highway Safety", by R. A. Moyer, research associate professor in highway engineering at Iowa State College, were the basis of a study of safety on present highways. Safety on future highways was covered in two papers, "Highways of Tomorrow" by Charles M. Upham, engineer-director of American Road Builders Association, and "Bituminous Highway Surfaces of Tomorrow" by F. C. Lang, engineer of tests, inspection and research, University of Minnesota's highway department laboratory. Upham's paper was read by C. W. Slee, assistant engineer director of the A.R.B.A., and Lang's by H. H. Houk, engineer of the Civil Aeronautics Authority, Washington, D. C.

Applied Research

W. S. Housel, research consultant with the Michigan state highway laboratory, was chairman of the first afternoon meeting which dealt with "Research as Applied to Construction and Maintenance of Bituminous Surfaces." This was followed by three half-day meetings given over to "Fundamental Bituminous Construction", "Design and Construction of Bituminous Surfaces", and "Maintenance of Bituminous Surfaces." J. E. Buchanan, dean of the college of engineering at the University of Idaho, led the discussion of the fundamentals of construction, D. F. Seifried, office engineer of the Wyoming state highway department, was chairman of the program dealing with design and construction, and T. R. Perry, bituminous engineer of the Iowa state highway commission, was in charge of the discussion considering maintenance.

Prior to conclusion of the meeting, a round-table discussion was held which lasted for four hours and proved to be one of the high points of the conference. Then the meeting ended with an inspection trip to visit projects of special interest.

Government Will Attempt To Stimulate Housing

Stimulation of private housing construction is especially important in view of the war situation because it will act as a balance wheel to prevent our economy from overemphasizing war industries, Thurman Arnold, assistant to the Attorney General, told the National Public Housing Conference Sept. 14 at Washington. Announcing that nationwide prosecution of trade restraints in the building industry would begin in thirty days, Arnold said that reduction of costs was the chief means to stimulate building. Government credit and subsidies have failed to do so, he explained.

Arnold will publish a detailed statement of the factors restraining the building industry as soon as his prosecutions start. Meanwhile, he stated they include manufacturers, patent owners, contractors, and labor. He counts upon the threat of prosecution to do more than actual prosecution to eliminate illegal practices. In cities where investigations have been under way, conditions have already improved, he claims. His listing of illegal practices will make it easier for consumers and competitors to attack combinations; it will serve also as a guide to law abiding business men, it is believed.

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Army Plans to Construct New England Air Base

Construction is to start immediately near Holyoke, Mass. on the Army's new $8,000,000 Northeast air base, last of the new bases approved by Congress. The first construction is to cost $3,613,000.

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Work on Niagara Span To Start This Fall

Actual construction work at Niagara Falls on the Rainbow Bridge, being built by the Niagara Falls Bridge Commission, an international body, is expected to begin this fall. The commission's engineers have been instructed to rush the plans for the abutments and piers of the bridge, for which separate contracts will be let as soon as possible.

The commission has voted for an immediate sale of $3,620,000 of bonds in the public market to finance the work, with bids on the bond issue to be opened Sept. 22. An extra cost of from $200,000 to $400,000 is expected because of the unsettled condition of the bond market.

Charles M. Reppert Dies—Long Active in Pittsburgh

Charles M. Reppert, consulting engineer, of Pittsburgh, vice-president of the American Society of Civil Engineers, and former chief engineer of the Public Works Department of Pittsburgh, died there Sept. 16 in a fall from the Schenley Park Bridge. He had driven to the Carnegie Library with Mrs. Reppert, had parked the car and told her he might go for a walk while she was in the library.

Reppert was born in Pittsburgh in 1880, graduated as a civil engineer from Cornell in 1904 and soon thereafter joined the engineering department of the Bureau of Filtration at Pittsburgh. Three years later he transferred to the Bureau of Construction of the Department of Public Works, becoming division engineer in 1910 and assistant superintendent in 1912. Subsequently he became designing engineer of the design division of the department.

During the World War Reppert was associated with Morris Knowles on the design and construction of Camp Meade, Maryland, from which work he went to the housing division of the Emergency Fleet Corp. After the war he joined the firm of Morris Knowles, Inc. and remained there until 1921, when he returned to city service as chief engineer of the Bureau of Engineering. Later he went into private practice for a brief period, but when the Department of Public Works of Allegheny County was organized he gave up that practice to become assistant director of the department. In 1926 Mr. Reppert again returned to the city service to become chief engineer of the Department of Public Works.

While serving the city and the county in these two latter capacities Reppert supervised construction of the Boulevard of the Allies, widening of Grant St., construction of the Mt. Washington Roadway, the East St. Bridge and the grade separation in Irving St.

Reppert was dismissed by Mayor McNair in 1935 as the result of a disagreement on policy. Since that time he has been in private practice.

Reppert was an engineer of unusual ability. He combined rare technical judgment and a high degree of design skill with fairness and broad vision. An energetic and tireless worker, he interested himself in civic and professional affairs in addition to his technical duties. His personal qualities won him a wide circle of friends.

• • •

Bridge Cost Bill Vetoed

A bill which would have changed the method of allocating the cost of building or reconstructing bridges over waterways, which was passed by Congress near the end of the last session, was vetoed by President Roosevelt on Aug. 14. It was incorrectly classed among the approved legislation published in our issue of Aug. 17, p. 196. The bill proposed to assess against railroads or highways only the cost of work that could be shown to be beneficial to the owners.

Wide World

BELGIUM BRIDGE DESTROYED WHEN LIGHTNING SETS OFF MINES

A DOUBLE TRACK RAILWAY BRIDGE over the Meuse River at Liege, Belgium, which had been heavily mined for defense purposes was destroyed recently when lightning struck and set off the explosives. A passenger train was crossing the bridge at the time of its destruction, ten persons being killed.

Reader Vote on WPA Opposes System

Degree of opposition varies according to type of job held by those casting the votes

Contractors are most articulate in their opposition to WPA construction activities and city and county engineers are least so, according to the vote thus far received in connection with the pro and con discussion of the WPA question by F. C. Harrington and W. A. Klinger in *Engineering News-Record*, Aug. 31, 1939, p. 60. All classifications of readers returned more "no" than "yes" votes on the question "Should WPA Continue in Construction?" Ratios of no to yes votes are as follows: general contractors and sub-contractors, 23:1; consulting engineers, 7:1; federal and state engineers, 3:1; city and county engineers 1½:1; teachers, 3:1; and general, 5½:1.

Despite the appearance of the discussion in an issue that reached readers at a time when war news from newspapers and radio was at its height, returns are high and are continuing to come in. Latest totals show 862 cards returned. Most readers vote a straight yes or no, although about a dozen have added qualifications and 5 or 6 have written detailed discussions. Such added statements are welcome.

• • •

Steel Production Booms In Pittsburgh District

Steel production rose to 73 per cent capacity in the Pittsburgh district at the opening of this week, a six point rise over the previous Monday. Since Sept. 1 the Carnegie-Illinois Steel Corp. and the Jones & Laughlin Steel Corp. have recalled 4,500 men. Similarly the coal and coke companies have recalled furloughed men. Renewed activities in the steel producers has stimulated work in such organizations as the Blaw-Knox Co. and the United Engineering & Foundry Co. The latter is reported to be planning an expansion of its Youngstown plant costing $750,000. The American Bridge Co. also has a large number of new orders in its books.

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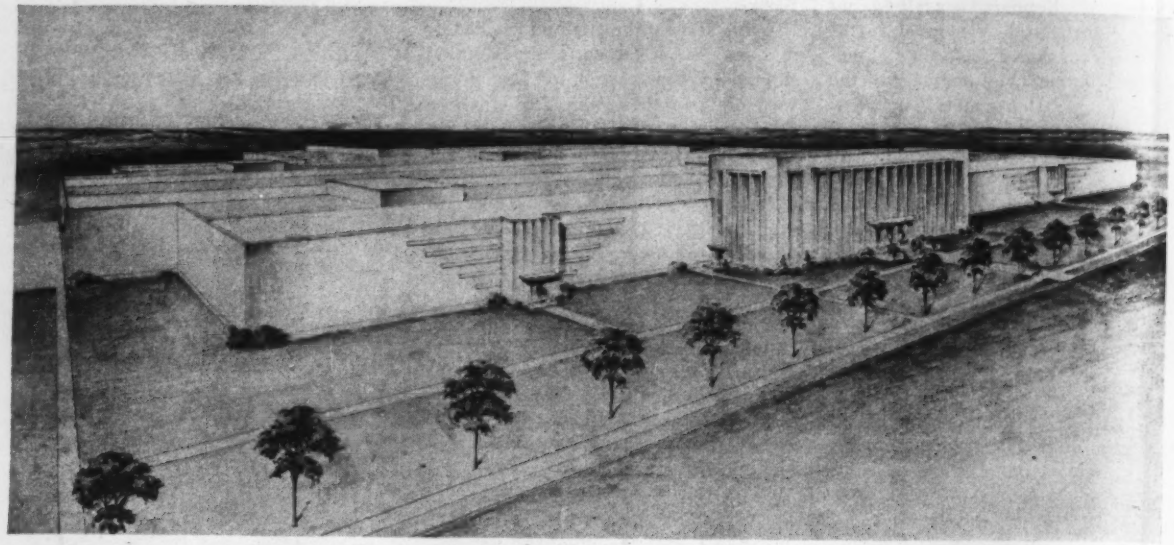
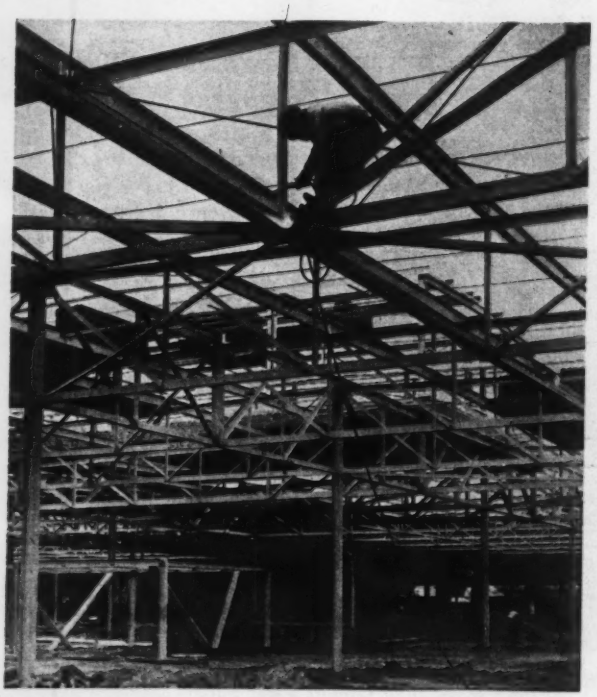
Building Materials Exempt In Canada's War Budget

Canada's war budget measure passed Sept. 12 continues to make building materials exempt from sales tax. Electricity and gas being consumed for domestic purposes are taxed.

Largest Windowless Factory to Turn Ou



WITHIN THESE SOLID WINDOWLESS WALLS airplane engines will be manufactured under ideal 24-hr. conditions of light and weather. Four pent-houses on the roof house the air-conditioning equipment.



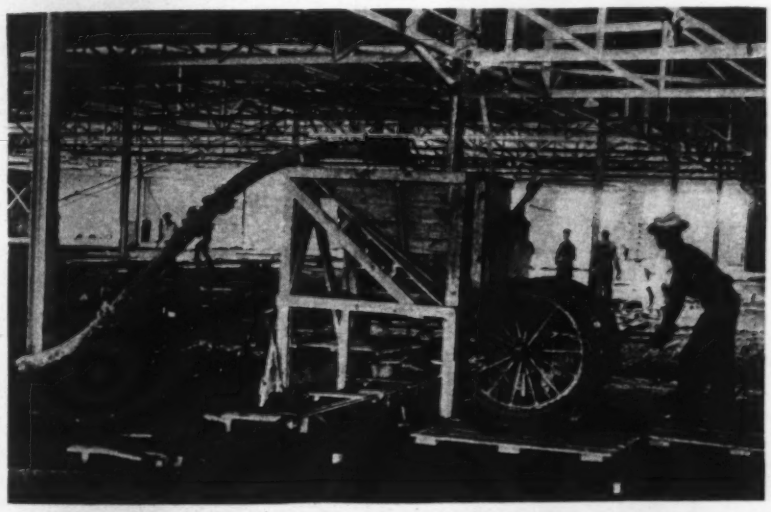
ALL-WELDED FRAMING characterizes the building. Columns are spaced 40 x 48 ft. and the clear working height to bottom chord of trusses is 15 ft.

Industrial preparedness for war or peace is being advanced in Indianapolis where the Allison Division of General Motors is rushing to completion a new factory to be devoted to the manufacture and development of its liquid-cooled aircraft engines. Designed and built by The Austin Co. of Cleveland, the new plant follows the precedent of windowless masonry walls and controlled lighting and airconditioning set by the recently completed plant of the Simonds Saw & Steel Co. in Fitchburg, Mass. With an area of 240,000 sq. ft. on a single floor the Allison factory will be the largest windowless factory yet built. An office building with monumental facades is attached to the front of the factory. Designed by Austin it is being built by The National Concrete Fire Proofing Co., Cleveland.

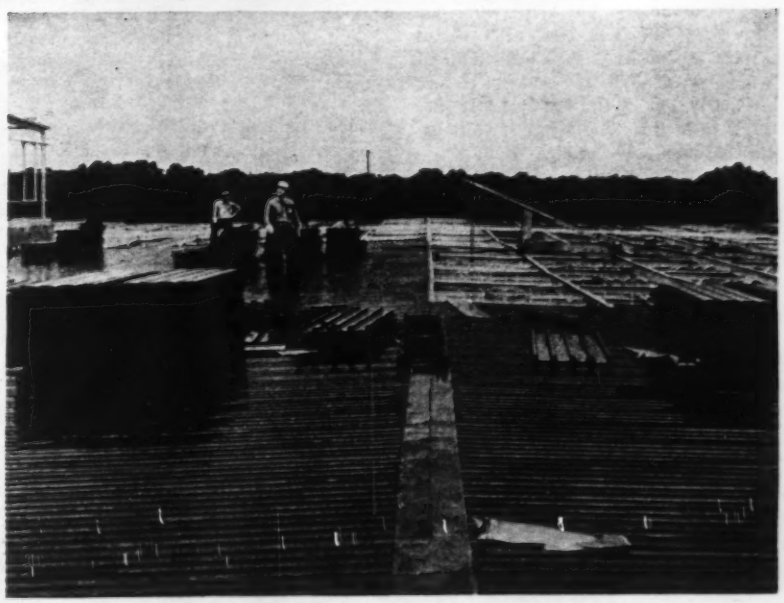
Incoming materials will enter the plant at a receiving dock at the east end from which they will move into two production lines, one for ferrous and one for non-ferrous materials, along the north and south walls, while the press shop, welding department, heat-treating and other metal finishing will be located in between. These parts will move into the sub-assembly and final assembly as they move toward the west end where the shipping department will be located. The building includes a power plant equipped with Diesel engines capable of supplying all the power required for manufacturing and lighting.

irplane Engines

LAYING UP the 12-in. walls, which consist of a brick exterior backed with haydite block, adopted because of the sound-deadening effect imparted by their porous texture.



THE 5-in. concrete floor slab is placed by buggies charged from a hopper fed by a concrete pump line from a central mixing plant set up outside the building.



STEEL DECK ROOFING is insulated with two 1-in. cane fiber boards covered with built-up roofing. Framing for one of the pent-house air conditioning rooms appears at the left.

OBITUARY

RAPHAEL J. SMYTH, chief of the engineering bureau of Bronx County, N. Y., died last week in New York City. Smyth was a graduate of Cooper Union and had done post graduate work in engineering at Columbia University, New York University and Brooklyn Polytechnic. He joined the Bronx engineering department in 1907, later becoming engineer of design and deputy chief engineer, and in 1938 was appointed chief engineer. In earlier life he had worked for a time with the New York Rapid Transit Commission. Recently he had been in charge of constructing the new Triborough Bridge approach through the Bronx.

P. F. MEADE, consulting engineer at Denver for the Western Portland Cement Association, died Sept. 11 at the age of 62. Meade had been associated with the cement industry in the Rocky Mountain region for the past 23 years, having started as district engineer with the Portland Cement Association at its Denver office. Subsequently he became district manager of the western association and then consulting engineer.

SIDNEY OWEN, 64, secretary-treasurer of the Rathbun-Jones Engineering Co., Toledo, O., died Sept. 16. Forty-four years ago Owen started his engineering career with the S. M. Jones Co. and later was one of the founders of the Rathbun-Jones Engineering Co.

FREDERICK E. RICE, 82, assistant engineer for the Milwaukee R. R. at Minneapolis until his retirement in 1937, died recently in Winlock, Wash. One of his early positions with the Milwaukee line was that of resident engineer at Pontis, S. D., a position held from 1906 to 1908. He was in charge of construction of the road's short line bridge over the Mississippi River between Minneapolis and St Paul.

ALBERT G. NORTON, 74, former bridge engineer, died Sept. 12 at Middletown, N. Y.

ALFRED B. HELFRICH, 76, who was connected with the Indianapolis Water Co. for 57 years in the construction department, died Sept. 12. He had been in charge of the construction of the filter plant, aqueduct and other important improvements by the company at Indianapolis.

CHESTER THOMPSON of Seattle, Wash., died there Sept. 7. Thompson designed and built the Yelm irrigation system in Western Washington and had worked as a construction engineer in various parts of the Pacific Northwest. He was 67 years old.

THOMAS H. HENNESSEY, SR., organizer and for many years president of the Monarch Engineering Co., Buffalo, N. Y., died Sept. 9. His company having specialized in the building of grain elevators, he had been in charge of the construction of many large elevators on the Buffalo waterfront.

T. L. LAIN, 52, superintendent of the Cleburne, Tex., waterworks for the past nine years, was fatally injured Sept. 9 in an automobile accident near Fort Worth, Tex.

J. R. BRYAN, WPA supervisor at Whitesboro, Tex., died there Sept. 8.

JOHN A. BURNS, superintendent of streets for New Britain, Conn., died Sept. 7. Burns had been associated with the public works department of New Britain for several years, having been made superintendent of streets three years ago. He was 37 years old.

JOHN W. STANCHFIELD, 79, retired builder, died Sept. 6 in Seattle, Wash.

OTTO DUNKEL, 60, construction engineer since 1932 associated with the Kinney Iron Works, died in Los Angeles Sept. 11. Serving for 30 years as chief engineer in charge of design for the Llewellyn Iron Works, he had been closely associated with the building industry in Los Angeles since 1900. Born and educated in Germany, Dunkel came to the United States 40 years ago to work with the West Side Structural Co., Watervliet, N. Y., and then with the T. H. Brooks Co., Cleveland, O.

CHARLES N. WRIGHT, president of the Wright Engineering Co. of Los Angeles, died Sept. 6 at the age of 61. Wright had been in the surveying and engineering field in and about Los Angeles since his youth, having taken over the business of his father, E. T. Wright, one of the earliest of the pioneer surveyors in Southern California.

EDWARD D. RUTH, 66, a pioneer in the field of waterworks development and the builder of numerous water systems in Southeastern Pennsylvania, was found dead from a bullet wound in his car near Lancaster, Pa., on Sept. 8. The former Lancaster, Pa., waterworks superintendent had committed suicide, according to a coroner's verdict.

ALBERT CHAMBERLAIN, 83, a former builder and contractor of Toronto, Ont., died recently in that city.

AUGUSTUS C. HONE, retired civil engineer, died Sept. 17, in New York City, at the age of 65. Following his engineering education at Rensselaer Polytechnic Institute, in 1895 he became connected with the Lidgerwood Manufacturing Co. Later he worked with the Evansville-Terre Haute R. R., the Louisville & Nashville R. R., and the Louisville & Atlantic R. R. He had also worked in Southeastern Alaska and in 1913 became chief engineer for M. W. Thompson, New York City expert on railroad valuation.

Bridge on Platte River Becomes Toll-Free

Last week, the highway bridge across the Platte River at Louisville, Nebr., became a toll-free structure, the state having purchased the structure from a private bridge company.

GRAND COULEE DRILLERS

ON THE GRAND COULEE DAM project drillers in hard hats are spending their days in bosun seats slung over the sheer granite space that is to be the west abutment of the dam and also the back wall of the pumping plant. For five years this cutting away of the canyon walls has been under way. Now, concrete is going into the upper portions of the dam and along the west canyon walls the rock face is being prepared for large pipes through which water will be pumped up into the Coulee.

Hetch Hetchy Power Sale Approved by Appeals Court

A decision upholding San Francisco's right to dispose of Hetch Hetchy power, through its present agreement with the Pacific Gas and Electric Co., was handed down Sept. 13 by the U. S. Circuit Court of Appeals. This decision reverses a U. S. District Court ruling which held that the city was violating provisions of the Raker Act and hence ordered dissolution of the agreement under which the city had been disposing of the power. The suit was initially brought by representatives of Secretary Ickes, head of the Department of the Interior, and, after last week's decision was announced, the statement was made by representatives of the department that if a rehearing cannot be had petition for a writ of review will be filed with the U. S. Supreme Court.

The Sept. 13 decision finds that the Raker Act contains nothing requiring the city to construct or acquire power distribution facilities and that the government's attack on the power disposal agreement which brings the city $2,000,000 annually "is clearly without merit."

If the present power disposal agreement had to be abrogated the city would be obliged to build or buy power distribution facilities in territory now served by the Pacific Gas and Electric Co. Municipal power distribution has eight times been voted down in San Francisco, the last time (last May) by a vote of 2.5 to 1.

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Construction to Start On Florida Air Base

Construction of an air base in Duval County, Fla. near Jacksonville is to start immediately, according to a recent announcement by Rear Admiral Ben Moreell, chief of the Navy Department's bureau of yards and docks.

The work has been speeded up due to the international situation and $15,000,000 has been allocated for initial costs. It had been previously stated that the Navy would take no construction steps until title to all of the needed land at nearby Camp Foster had been given the federal government.

Griffith-Bent Low Bidder For Friant Dam Project

A combination of the Griffith Co. and the Bent Co., 418 So. Pecan St., Los Angeles, Calif., submitted the lowest of five bids to the Bureau of Reclamation on Sept. 14 for the construction of Friant Dam, part of the Central Valley project in California. The low bid was $8,715,359, only $390,000 below the second bid, but nearly $4,000,000 under the highest proposal. The Shasta Const. Co., a combination made up of McDonald & Kahn, General Const. Co., H. J. Kaiser and J. F. Shea, bid second with $9,105,760. The third combination, bidding $9,197,169, included Bevanda, Jahn & Bressi, Dowling and R. G. Clifford. Another combination, including Winston Bros., Arundel Corp., Dave Thurston, American Concrete & Steel Pipe Corp. and L. E. Dixon, bid $12,368,660. The high bid of $12,483,173 was submitted by Friant Const. Co., a three-firm group headed by Guy F. Atkinson.

The contract includes 770,000 cu. yd. excavation for the dam, stripping 600,000 cu. yd. from gravel deposits, handling 3,222,000 tons of aggregates, and placing 1,850,000 cu. yd. of concrete in the dam and 57,000 cu. yd. in appurtenant structures. All materials entering into the structure will be furnished by the government.

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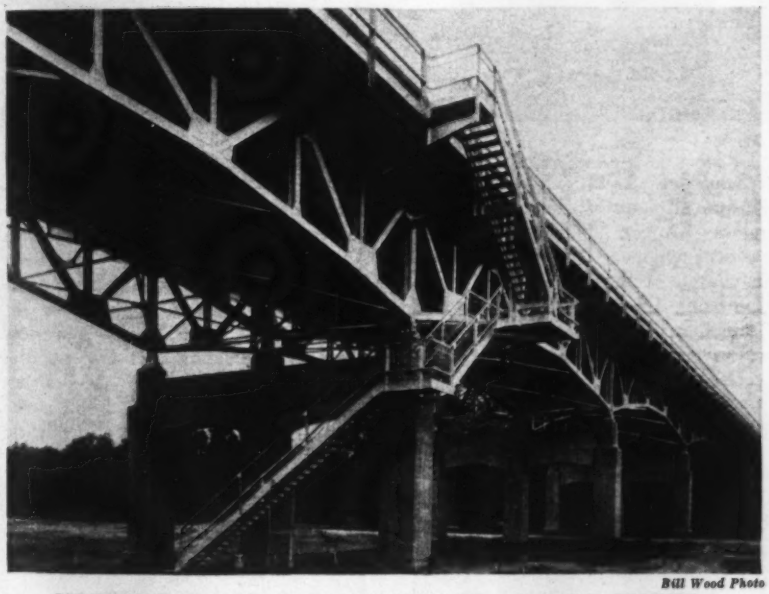
Work on Denison Dam Not to be Halted

The next move in the controversy between Governor Phillips of Oklahoma and the federal government over construction of Denison Dam (*ENR*, Sept. 7, 1939, p. 1) was left up to the governor last week when Secretary of War Woodring flatly refused to halt work on the project. The secretary's letter, moreover, reiterated the warning that Phillips must not expect to eliminate Denison and keep the other flood control projects in the state.

Woodring's position received support last week from the President, who said at a press conference that the project definitely would be built. This was emphasized by the award Sept. 5 of the first construction contract, covering outlet works excavation and a temporary bridge to Geo. W. Condon Co. and John Kerns Construction Co. of Omaha.

In his letter to the governor, Woodring said that "the right of the federal government to acquire lands . . . within a state, with or without the consent of the state, has been repeatedly upheld by the courts . . ."

The dam is to be built on the Red River between Oklahoma and Texas.



Bill Wood Photo

NEW BRIDGE FOR U. S. HIGHWAY 80 AT FORT WORTH

PRINCIPAL CONSTRUCTION project necessary for re-routing of U. S. Highway No. 80 at Fort Worth, Tex., was the above bridge, known as the Lancaster Street bridge. The new route crosses Trinity River and passes through Trinity Park, considerable effort having been made to design a structure of pleasing appearance. Deck trusses with curved bottom chords were selected for the park area and the main river channel; approaches are I-beam spans with massive concrete tower piers marking the end of the approach spans and the beginning of the truss section, which consists of six 3-span continuous deck truss units.

The contract price of the work was $557,000, the largest regular federal aid bridge project ever carried out for the Texas State Highway Department. The contractor was Russ Mitchell, Inc., of Houston with Ed Abbott, superintendent of the work. R. B. Alexander, senior resident engineer, under the direction of D. C. Woodward, division engineer, represented the Texas State Highway Department.

Two railroaders tell it to a contractor—after all, it's their railroad, and all he is doing is rebuilding 35 miles of it. **Wm. Lowther,** construction engineer for the Union Pacific in charge of reconstruction along the Bonneville Reservoir in Oregon, and **Sam Murray,** his boss out of the Portland office, get a laugh out of **George Bonnell,** superintendent for Morrison-Knudsen as they meet in a cut in the Columbia River Gorge section. The three of them have cooked up some neat tricks in track raising.

The only time to find these three men together in the hustle-tussle of construction activity on the New Haven, Conn., sewage disposal plant is when the quitting whistle blows. From left to right: **William Koerner,** timekeeper; **C. J. Coombs,** field engineer; and **Wallace J. Weaver,** superintendent of the Tuller Construction Co. of Red Bank, N. J. An important part of the contract is the laying of a 36-in. submarine sewer line almost a mile in length under the harbor.

MEN AT WORK

Railroad construction projects have been pretty scarce for several years, but **George W. Patterson** wouldn't know about this, as he has been busy as engineer in charge for the Pennsylvania R. R. on the construction of the big new coal loading dock at Sandusky, Ohio. The project, nearing completion, includes a cellular steel sheetpile cofferdam wall 3,500 ft. long, some 3,000,000 cu. yd. of hydraulic fill and the most recent developments in car dumping facilities.

Sandhogs, superintendents and engineers all look alike on the Chicago subway project. This happens to be a resident engineer—**J. Walter Grimm,** in charge of the Clybourne Ave. section being driven by M. J. Boyle & Co. Grimm, in common with many on the subway staff, was formerly a tunnel engineer for the Chicago Sanitary District, so has a sticky acquaintance with the Chicago blue clay. He will be in charge of the tough State St. shield-driven section in the Loop.

Ben Harig, superintendent for Penker Const. Co., of Cincinnati, on the construction of the new Pennsylvania Ave. bridge across the Anacostia River in Washington, D. C., surveys his domain from a perch high above the river. He is responsible for some very neat cofferdams on this job, built of Z-shape sheetpiling and steel wales. His big worry is to keep ahead of the Bethlehem Steel gang. Bethlehem hasn't resorted to sky hooks, yet a pier is always ready.

New Contractor Named For Havre de Grace Span

When Robert C. Reitz, of Lancaster, Pa., and contractor on the substructure for the new highway bridge over the Susquehanna River at Havre de Grace, Md., failed to return last week, (*ENR* Sept. 14, p. 321) the State Roads Commission issued a new contract for the substructure work to the McLean Contracting Co. of Baltimore.

The new contract was let at the request of the Hartford Accident and Indemnity Co. which had guaranteed the performance of Reitz' contract by issuing a surety for $959,000. About 50 per cent of the work on the substructure is complete and the new contractor will receive between $500,000 and $550,000 to finish the job, the Baltimore company having agreed to do the work for the same figure Reitz had bid providing the bills for previous work are borne by the bonding firm.

No trace of Reitz has been found since his disappearance Aug. 19.

CONTRACTS AND CAPITAL

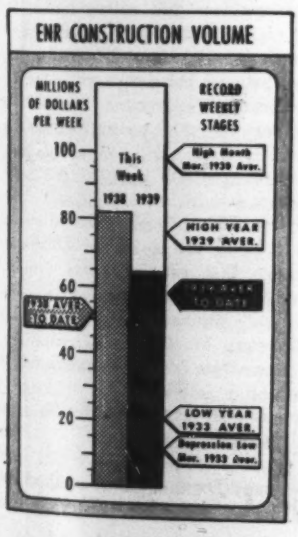
ENGINEERING construction awards for the week total $69,348,000, an increase of 37 per cent over last week, but 16 per cent below the volume for the corresponding 1938 week.

Private awards for the week top the previous week by 94 per cent, and are 154 per cent higher than a year ago due to the high volume of industrial building awards. Public construction exceeds last week by 16 per cent, but is 41 per cent lower than a year ago.

Five large contracts totalling $13,500,000 bring industrial buildings to the highest weekly level since June 24, 1937. An aeroplane motor manufacturing plant in Indiana, $6,000,000, and a generating unit for power production in Massachusetts, $4,000,000, make up the bulk of the total. In addition to industrial buildings, bridges, public buildings, streets and roads, and unclassified construction are above a week ago; and bridges, and earthwork and drainage exceed their respective volumes of a year ago.

New capital for construction purposes for the week totals $14,376,000, a decrease of 79 per cent from the volume for the corresponding week last year. The current week's volume is made up of $12,111,000 in USHA loans for low-rent slum-clearance projects, $1,845,000 in state and municipal bonds, $300,000 in RFC loans for public improvements, and $120,000 in corporate security issues.

New construction financing for the year to date, $2,170,096,000 is 29 per cent below the total for the initial 38-week period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending Sept. 22 1938	Sept. 14 1939	Sept. 21 1939
Federal	$7,451	$13,012	$10,898
State & Municipal	64,237	23,624	31,533
Total public	$71,688	$36,636	$42,431
Total private	10,564	13,836	26,917
TOTALS	$82,252	$50,472	$69,348
Cumulative 1939 (38 weeks)			$2,221,741
1938 (38 weeks)			$1,950,531

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1938 38 Wk.	1939 38 Wk.
NON-FEDERAL	$1,915,782	$1,042,068
Corp. securities	332,077	175,709
State & Mun.	433,831	400,636
R.E.A. loans	19,406	89,445
R.F.C. loans	97,391	4,315
P.W.A. allot.	628,770	.....
U.S.H.A. loans	202,807	172,963
Fed. Aid—Hwys.	201,500	190,000
FEDERAL	$1,144,698	$1,128,028
TOTAL CAPITAL	$3,060,480	$2,170,096

FHA MORTGAGES

	Week Ending Sept. 17 1938	Sept. 9 1939	Sept. 16 1939
Selected for appraisal	$24,186	$17,311	$22,300*
Cumulative 1939 (37 weeks)			$828,384*
1938 (38 weeks)			$713,718

* Subject to revision.

ENR INDEX NUMBERS

		1913	1926
Index Base			
Construction Cost	Sept.	234.97	112.95
Building Cost	Sept.	196.61	106.28
Volume	Aug.	228	100

Shore Experts Meet in New York

Shore and beach preservation authorities discuss federal aid to erosion control

Activities of the federal government in matters relating to shore preservation were the principal subjects discussed at the summer meeting of the American Shore and Beach Preservation Association held at New York Sept. 11-12. Conditions growing out of the war in Europe kept two of the scheduled speakers away, I. J. van Veer, Chief Engineer of Netherlands, and Major General J. L. Schley, Chief of Engineers, U. S. Army.

Representing General Schley at the meeting was Col. E. J. Dent. He quoted the general as saying that it is essential that the U. S. Beach Erosion Board continue its field investigations of coastal erosion problems and *increase* its program of scientific research at its Washington wave tank. The board will continue its program of cooperating with colleges or universities having hydraulic laboratories that wish to conduct experiments in line with the board's program of research, and will make its own information available to such institutions. The army engineers have interpreted this to mean only "federal real property or direct government interest."

The board of directors of the association adopted a resolution declaring that nothing in Presidential veto of the general river and harbor bill could be construed as disapproval of Section 8, which established the principal of federal financial aid for beach preservation projects according to the amount of *public* interest. Under present law, the Beach Erosion Board reports must contain recommendation for amount of federal financial aid based on the extend of *federal* interest.

Major A. C. Lieber Jr., recorder of the Beach Erosion Board, reported that the board has completed its study of Hawk's Nest Beach, Conn., and that studies were authorized on Aug. 14 at St. Simon Island, Ga., Presque Isle Peninsula, Erie, Pa., Erie County, Ohio, and Long Beach, Calif. Two of these are the first studies to be undertaken on the Great Lakes. At Hawk's Nest Beach, the hurricane of last fall did little damage to the beach proper as the waves broke above the normal wave range. Major Lieber reported that at least four hurricanes have struck the New England coast since the establishment of the colonies.

The board is giving much time to comparing experiments in the new wave tank with full-scale observations.

MEN AND JOBS

EUGENE C. HULTMAN, chairman of the Metropolitan District Commission at Boston; ARTHUR D. WESTON, chief engineer of the Massachusetts state public health department; JOSEPH F. DEVER, sewerage engineer for the commission; THOMAS R. BATEMAN, former Massachusetts state representative of Winchester, and NEIL MCDONALD, Quincy, are the members of a board created to study the pollution of Boston harbor.

EZRA B. WHITMAN, engineer and chairman of the Maryland State Roads Commission, has been made a member of the executive committee of the Maryland Traffic Safety Council. An important part of his new work will be in the effort to reduce traffic accidents on the highways of Maryland.

STANTON C. FUNK, Hollidaysburg, Pa., has been named a member of the engineering staff of the Pennsylvania General State Authority.

WILLIAM J. ROLFE, Clarks Summit, Pa., has been named project engineer with the Pennsylvania department of highways. Other new appointments are ANDREW J. WATSON, JR., Pittsburgh, district traffic engineer, and HOMER C. BENNET, Clearville, project engineer.

LESLIE E. COLBY, graduate of the University of Illinois, and former project engineer with the WPA on the Navy pier at Chicago, has accepted an appointment as an assistant project manager and assistant public works officer with the rank of Lieutenant in the Civil Engineering Corps of the U. S. Navy Department at Parris Island, S. C. He is leaving the position of inspector with the U. S. Engineer Department on Sardis Dam, Sardis, Miss., to accept the new position.

NEAL D. SMITH, an engineer with the Metropolitan Water District of Southern California for 11 years, has been chosen city manager of Ontario, Calif.

GEORGE E. LINTON, assistant engineer on the construction of the North Fork Debris Dam in California with the Army Engineers, has been transferred to the district office at Portland to work on the design of the Willamette valley project.

O. R. LUNN, chief engineer on Stevens (Mud Mountain) Dam, at Portland, Wash., has been transferred to the Army Engineers district office at Seattle where he will be office engineer during the construction of the dam.

RAY N. CRUDEN, engineer and inspector with the Washington state highway department, is now employed in the Army Engineers office at Sacramento.

H. F. BAHMEIER, resident engineer for the Island Park dam in Idaho, has been named resident engineer on the Vallecito dam on Pine River in Colorado. The work is being carried out by the Bureau of Reclamation.

T. C. MARSHALL, city manager of Rock Hill, S. C., for the past six years, has resigned to return to private work in engineering.

VIRGIL E. KNIGHT, Monroe City, Mo., has been elected city engineer of Indianola, Ia., to succeed WALTER JORGENSEN, who resigned. Knight is a graduate of the University of North Dakota.

ROSCOE KROEGER, engineer with the Tri-County Public Power and Irrigation District of Hastings, Neb., has been appointed city engineer at Grand Island, Nebr.

JULIAN MONTGOMERY, Texas highway engineer, has been appointed a member of the standing committee of the American Association of State Highway Officials and the Associated General Contractors. Montgomery succeeds ELMER C. LAWTON of the New York state highway department.

PITTMAN SUTTON, connected with the Southeastern Construction Co. of Charlotte, N. C. for several years, has been transferred to Atlanta where he will manage the company's office in that city. Supervision of projects in Georgia and Alabama will be handled from the Atlanta office.

GEORGE R. WHITE, civil engineering graduate of the University of Illinois, has been appointed assistant structural engineer in the buildings division of the Buffalo, N. Y. city government. Since 1936 he has been serving as senior draftsman in the division.

JOHN A. MCLAUGHLIN, JR., civil engineering graduate in 1933 from Cornell University, has been appointed instructor in civil engineering department of the College of Engineering at the University of Maryland. He has been engaged in general engineering practice since graduation.

JAMES H. WARNER has begun new duties with the engineering staff on the Friant Dam project, as has A. A. WHITMORE, resident engineer on the Friant-Kern and Madera canals. Warner will be resident engineer and was formerly resident engineer on the Seminoe dam of the Kendrick project. Whitmore was in charge of the work on the Friant project for more than a year prior to the arrival of R. B. WILLIAMS, construction engineer now in charge of the division.

CAPT. LESLIE R. GROVES, JR., army engineer located at Pasadena, Calif. is now carrying out an engineering investigation in Nicaragua.

ALFRED E. SKINNER, western manager, Pitometer Co., Chicago, retired Sept. 1 and has moved to southern California. He joined the company in 1917 and for several years was secretary of the Illinois section of the American Water Works Association. A conference with President Rubio of Mexico and work in Halifax during the World War are among his experiences. C. R. BIRD, district manager, Detroit, is taking over Skinner's work.

FRANK K. DUNCAN, after 42 years of service with the city engineering staff of Baltimore, Md., is retiring Oct. 1. Duncan graduated from Maryland Institute in 1893 and became associated with the city in 1894 as draftsman for topographic surveys. In 1911 he was made assistant engineer of the paving commission, becoming principal assistant engineer in 1915. Working with the Crown Cork & Seal Co. as assistant engineer, making a survey of Bethlehem, Pa. for the U. S. Housing Corp., and serving as assistant engineer in the valuation department of Western Maryland Railway, are other jobs he has also held. George Cobb, deputy chief engineer and acting head of the municipal highways bureau, is expected to take over Duncan's duties. Cobb became connected with the city's engineering department in 1912 as a member of the paving commission. When the engineering forces of the city were reorganized in 1925, he became connected with the highways bureau and was named head of that division in 1931. Upon the death of BERNARD L. CROZIER last year, he was appointed deputy chief engineer.

WILFRED W. DAVIS, an employee of the Iowa state highway commission, has received a fellowship to study in the bureau of street traffic research at Yale University.

ROBERT DIER, engineer of the Illinois division of highways, located at Dixon.

this year will study in the Bureau for Street Traffic Research at Yale University. He has been with the division for 11 years and is a graduate of the South Dakota School of Mines.

C. A. NELSON and MIKE J. BESSO have been appointed assistant engineers in the engineering department of Springfield, Ill.

HENRY L. S. WILLIAMS, Montreal, Que., chief of the survey department of the Northern Electric Co. Ltd., is retiring after 29 years of service in the department.

PIERRE WARREN has been appointed town engineer of Rouyn, Que., to replace the late ETTIENNE PELLETIER who lost his life in a hotel fire.

JOE TUSCHER, of Ipswich, S. D., has been appointed engineer of McPherson county, S. D., to succeed W. E. WOODRUFF, who has accepted a position with the WPA at Fort Meade, S. D. Tuscher will be located at Leola.

C. S. CLARK, Donna, Texas, has been reappointed a member of the board of water engineers of Texas for a 6-year term. Clark is a senior member, having first been appointed in 1917, and has served as chairman for several years.

WILLIAM M. TURNER, WPA administrator attached to the old age office in Biloxi, Miss., has been transferred to Meridian, Miss., as area engineer, to be in charge of operations for projects in Clarke, Kemper, Neshoba, Newton and Lauderdale counties.

C. T. MONTGOMERY, structural engineer with the Portland Cement Association of Virginia, has been transferred to Minneapolis to take charge of structural work in North Dakota and Minnesota for his company.

AUVELE VILLENEUVE of Montreal, has been named municipal engineer of Grantham, Que.

W. C. STOWELL, civil engineer, has been appointed to head all road construction work for the city of Hazlehurst, La.

MASON BUTCHER and J. EDWARD JOHNSTON, engineers of the Nebraska state department of roads and irrigation, have been given a year's leave of absence to attend Yale University. Butcher has a graduate fellowship to continue his engineering studies and joined the department in 1936. Johnston has been with the department since 1925.

MEETINGS

PAN AMERICAN HOUSING CONFERENCE, Buenos Aires, Oct. 2–7.

AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, Richmond, Va., Oct. 9-13.

PUBLIC WORKS CONGRESS, annual meeting, Pittsburgh, Pa., Oct. 9-11.

INSTITUTE OF TRAFFIC ENGINEERS, 10th Annual Convention, Atlantic City, N. J. Oct. 14–17.

MISSISSIPPI VALLEY ASSOCIATION, annual meeting, St. Louis, Mo., Oct. 15-17.

AMERICAN PUBLIC HEALTH ASSOCIATION, annual meeting, Pittsburgh, Pa., Oct. 17-20.

AMERICAN SOCIETY OF SAFETY ENGINEERS, annual meeting, Atlantic City, N. J., Oct. 18.

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS, fall meeting Atlanta, Ga., Oct. 30-31.

NATIONAL RECLAMATION ASSOCIATION, annual convention, Denver, Colo., November 14-16. Directors meeting Nov. 12-13.

REGIONAL AND LOCAL

NORTHERN MICHIGAN COUNTY ROAD COMMISSIONERS ASSOCIATION, annual meeting, Traverse City, Mich., Sept. 28-29.

NEW YORK STATE SEWAGE WORKS ASSOCIATION, fall meeting, Olean, N. Y., October 6-7.

MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS, annual state convention, Joplin, Mo., October 6-7.

CLEVELAND ENGINEERING SOCIETY, Cleveland, Oct. 10.

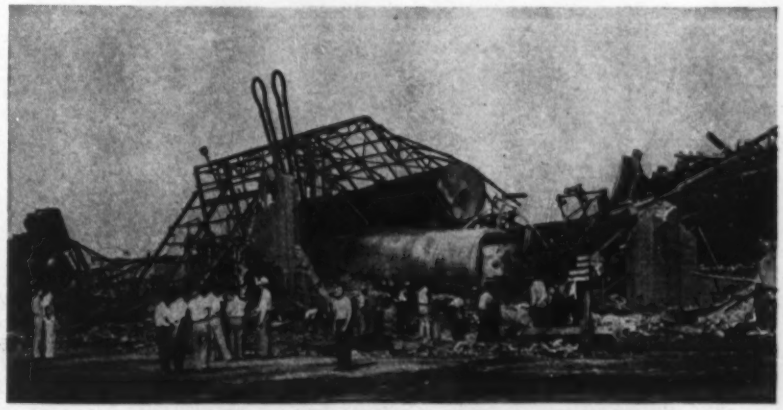
CENTRAL STATES SEWAGE WORKS ASSOCIATION, annual meeting, Chicago, Ill., Oct. 12-13.

AMERICAN WATER WORKS ASSOCIATION, section meetings: Morgantown, W. Va., Sept. 27–29; Reading, Pa., Oct. 5–6; Dallas, Texas, Oct. 16–19; Atlantic City, N. J., Oct. 20–21; San Francisco, Oct. 25–28; Utica, N. Y., Nov. 2–3; Charlotte, N. C., Nov. 6–8.

ELECTIONS AND ACTIVITIES

WESTERN SOCIETY OF ENGINEERS has formed a new section for the consideration of traffic engineering and city planning. At the organization meeting Sept. 11 Otto K. Jelinek, traffic engineer, Chicago Park District was made chairman and Charles E. DeLeuw, heading the staff planning superhighways, vice chairman. Other directors are Kendrick Harger, district engineer, Illinois Division of Highways; Loran D. Gayton, city engineer, W. W. DeBerard, associate editor, *ENR*, and Hugh E. Young, chief engineer, Chicago Plan Commission. Entrance of Chicago on a heavy program of traffic facilities including a new plan commission, subways, superhighways, and their influence on the city's development, induced the society to set up the section as an engineering educational agency.

LEON C. BIBLER, consulting engineer with the United States Steel Corporation was the principal speaker at a meeting of the Columbus section of the American Welding Society held at the Fort Hayes Hotel, Sept. 8. The speaker on this occasion reviewed many of the forward steps made in the welding industry over the period of the past 16 years.



EXPLOSION WRECKS WOOD PRESERVING PLANT

An explosion of unknown origin Sept. 6 destroyed the wood preserving plant of the Century Wood Preserving Co., Charleston, S. C., a subsidiary of the Wood Preserving Corp. of Pittsburgh. One man was killed and several injured. Total damage was estimated at $200,000 and effect of the explosion was felt for some distance from the accident.

CONSTRUCTION REPORTS

Compiled by BUSINESS NEWS DEPARTMENT
Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, MANAGER
(Daily service also available—Write for details)

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

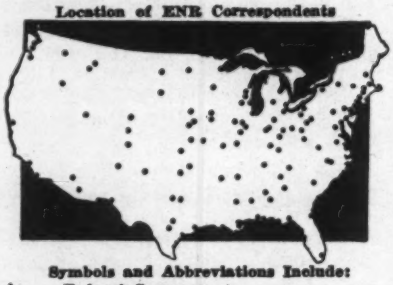
Classes of Construction
(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Materials, Equipment
Bridges, Grade Cross'gs	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads); BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR); LOW BIDDERS ($500,000 projects and over); CONTRACTS AWARDED

Location of ENR Correspondents



Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD McGraw-Hill Construction Daily

WATER SUPPLY

PROPOSED WORK

Fla., Riviera—WW sys. $60,000. K. Riddle, c/o Town, engr.

Ind., Clarks Hill—A. R. Bryant, town clk., WW sys. $60,000. M. L. Burden, Alexandria, consult engr.

Ia., Glenwood—State, Des Moines, water tank and tower at State School for Feeble Minded. $20,000.

Ia., Independence—State Bd. Control, Des Moines, water tank and tower at State Hospital, $20,000. H. L. Liebbe, Les Moines, state archt. CD 9/13.

Ia., Woodward—State Bd. Control, Des Moines, water filtration plant at State School. $20,000. Funds appropriated.

Kan., Agra.—WW sys. $58,000. Paulette & Wilson, Natl. Res. Bldg., Topeka, engrs.

Kan., Summerfield—WW imprvs., $36,000. Plan to make application to WPA. Paulette & Wilson, Natl. Bank Topeka, Topeka, engrs. CD 6/27.

N. Y., Irvington—Village Bd., W. A. Murphy, mgr., exten. c.i. watermains, near Cyrus Field Rd. Over $15,000.

N. Y., Olean—W. T. Donegan, city clk., well water supply sys. $30,000. Plans in abeyance. New plans probably early in 1940. C. Weatherell, Jr., city engr. CD 2/3—ENR 2/9.

N. C., Wilmington—$17,000 bond election October 20, water and sewerage sys. imprvs. Total $30,000. PWA. J. E. L. Wade, comr. P. Wks.

★**O., Chillicothe**—$825,000 bond election Nov. 7, to purchase privately owned WW plant, J. E. Clark, city engr.

O., Somerset—J. McElroy, mayor, $15,000 bond election Nov. 7, installing WW sys.

Okla., Britton — Additional drilled well, pump, motor and pipe line. $18,000. T. G. Banks, Liberty Bank Bldg., Oklahoma City, engr.

Okla., Stonewall—2 additional drilled wells and new pump. equip. $20,000. G. G. Toler, Ada, engr.

Okla., Tulsa—T. A. Penney, mayor, 24 in. c.i. force main Peoria Ave. from 2 to 21 Sts. $45,000. Will be financed in this years budget. W. R. Wooten, City Hall, engr.

Okla., Vinita—S. Updegraff, mayor, new and additional watermains. $22,600. F. C. Settle, Pryor, engr.

Pa., Bellefonte—General State Auth., 112 N. 2 St., Harrisburg, water line at Western State Penitentiary, Rockview Branch. $143,000. Will be WPA or private bid project pending WPA-GSA decisions. J. R. Ryan, Pollack Rd., State College, engr.

Pa., Camp Hill—General State Auth., 112 N. 2 St., Harrisburg, water sys. at White Hill Industrial School for Boys. $213,244. Undecided whether to be WPA or private contractors bid job. W. McDowell, 2703 Logan St., Camp Hill, engr.

Pa., Franklintown—Boro, water supply and distr. sys., deep well, storage tank, reservoir, etc., $41,000. **Maturity 1940.**

Pa., Mount Alto (P. O. South Mountain)—General State Authority, 112 N. 2 St., Harrisburg, water supply sys., dam and pump for Mt. Alto sanitarium. $188,398. May be WPA project or bids may be asked. H. C. Erb, South Mountain, Mt. Alto, engr.

Pa., Polk — General State Auth., J. L. Stuart, exec. dir., Harrisburg, water supply sys. and pump. plant. $52,630. May file application with WPA soon. H. B. Joyce, 810 Commerce Bldg., Erie, engr. CD 8/29—ENR 8/31.

Tex., Dalworth—$52,000 bond election Sept. 26, WW and sanitary sewer imprvs.

Tex., Melvin—New WW sys., $30,000. Bond election soon, Engineer not appointed.

Wash., Goldendale—H. W. Mort, city clk., water sys. and sewage disposal plant. $62,000. G. D. Hall, Larson Bldg., Yakima, engr. CD 9/1—ENR 9/7.

Wash., Sunnyside—K. Stone, city clk., $100,000 bond election Sept. 28, increasing reservoir storage from 250,000 to 1 m.g. capacity, 7,500 ft. 6- to 12-in. c.i. pipe. $106,000. G. D. Hall, Larson Bldg., Yakima, engr. CD 8/22—ENR 8/24.

N. B., Campbelltown—S. H. Lingley, town clk., bids soon, chlorination plant for water supply. Approx. $2,500.

BIDS ASKED

Bids Asked September 27

★**O., Toledo**—W. F. Harris, dir. Pub. Serv., Div. JA, crosstown main, furnishing pipe and specials; Div. JB, crosstown main, installing pipe and specials and appurtenant work in connection with Lake Erie water supply project. $600,000. Greely & Hansen, 6 N. Michigan Ave., Chicago, Ill., engrs.

Bids Asked September 28

N. Y., Colonie—Latham Water Dist., Town Hall, Newtonville, constructing well, pump. station, pump. equip., 1 m.g. steel standpipe, pump. sta. equip., piping, valves, appurtenances, etc. Solomon & Keis, 257 Bway., Troy, consult. engrs.; adv. ENR 9/21.

Bids Asked September 29

★**Kan., Wichita**—C. C. Ellis, city clk., 25 mi. 48 in. watermain to connect new wells with city distr. sys. c.i. steel or steel lined rein.-con. pipe, filter plant and equip. $1,000,000 upwards. Black & Veatch, 4706 Bway., Kansas City, Mo., engrs. CD 9/12—ENR 9/14.

Bids Asked October 2

Ind., Haubstadt—A. L. Redmon, town clk., WW sys., c.i. pipe, copper service pipe, fire hydrants, deep well, pump. $32,000. Bids later on 75,000 gal. elevated steel tank.

N. Y., Granville—Water Dist. 1, Attention H. Williams, superv., at town office, Main St., installing 100 gpm. gravel, water supply well. F. L. Brown, Box 163, Ft. Edward, engr.; adv. ENR 9/21.

Bids Asked October 3

Calif., Chino—W. K. Daniels, acting state archt., P. Wks. Bldg., Sacramento, constructing pile fdn. (only) for elevated steel water tank (which is to be under separate contract), involving furnishing, installing 72 cast in place concrete piles, for State.

Tex., Big Springs—R. V. Jones, mayor, WW imprvs., Contr. 6, 1 m.g. concrete storage reservoir, etc., Contr. 7, watermains and appurtenances. $40,000. Freese & Nichols, 407 Capps Bldg., Fort Worth, engrs.

CONTRACTS AWARDED

Calif., Eldridge—State, Div. Architecture, Dpt. P. Wks., P. Wks. Bldg., Sacramento, repairing Fern Lake South Dam at Sonoma State Home, etc., to Helwig Constr. Co., 115 S. Main St., Sebastopol, $11,976. Bids 9/6. CD. 8/22—ENR 8/24.

Calif., Pasadena—City Water Dpt., City Hall, repairing Azusa Conduit, San Gabriel Canyon, to Werner & Webb, 1113 N. Sycamore Ave., Los Angeles, $31,864. Est. $34,000. Bids 8/30, awarded 9/12. CD 8/21.

Ga., Athens—WW imprvs., to Searcy B. Slack, 455 Clairmont Ave. N.E., Atlanta, $39,999. Bids 9/11. CD 8/29—ENR 8/31.

Ga., Cairo — Water sys. exten., WPA, $39,147.

Ga., Cave Springs—Exten. water and sewerage sys., WPA. $65,000.

Ky., Newport—J. R. Kinsella, city engr. Contr. 1, 2 mi. water mains, to John G. Exterkamp, Covington, $29,240; Contr. 2, removing water tank from Southern Hill to Clifton Hill, to Stacy Mfg. Co., Township and Big Four R.R., Elmwood, Cincinnati, O., $10,170. Est. $60,000. Bids 8/31. CD 8/23.

†Md., Chesapeake City—U. S. Eng., 940 Customhouse, 2 and Chestnut Sts., Phila., Pa., water supply sys., to W. G. Fritz Co., Inc., 68 Main St., West Orange, N. J. Bids 8/17, awarded 8/17. CD 8/2—ENR 8/10.

Mass., Boston—Commonwealth of Massachusetts, Metropolitan Dist. Comn., Parks Div., W. E. Whittaker, secy., 20 Somerset St., furnishing, laying 5,900 lin. ft. 4 in cement lined c.i. water pipe, to Appel & O'Toole, Roxbury, $8,861. Bids 5/4. CD 5/2.

Mass., Boston—At office Metropolitan Dist. Water Supply Comn., R. N. Molt, secy., 20 Somerset St., to Crane Co., 48 W. 1 St., South Boston, Contr. 87, furnishing air valves, needle valves, pivot valve, for waterworks project at Southboro, Framingham and Weston, $2,527, Bids 6/15, CD 5/24—ENR 6/1***to Chapman Valve Mfg. Co., Indian Orchard, Contr. 91, gate valves for Weston Aqueduct, $1,492, Bids 6/29, CD 6/13—ENR 6/15; Contr. 92, valves, special castings, etc. for Spot Pond By-pass, Melrose and pressure aqueduct, Southboro, Items A, $15,230; B, $5,824 and C, $3,019***to Lombard Governor Corp., Ashland. Item D, $2,774***to Warren Fdry. & Pipe Corp., 75 Federal St., Boston. Item E, $7,271, foregoing Bids 7/27, CD 7/15—ENR 7/20*** to Rodney Hunt Machine Co., 46 Mill St., Orange, Contr. 91-B, furnishing gate hoists for Weston Aqueduct, Framingham, $1,500. Bids 7/27, CD 7/24. Grand total $40,427.

N. Y., Bethlehem (P. O. Delmar)—Water Comn., W. D. Jordon, chn., valves for water sys., to Eddy Valve Co., Waterford; c.i. pipe, to Central Fdry. Co., 420 Lexington Ave., New York. Est. $15,000 (additional). CD 9/12—ENR 9/14, under CA.

N. Y., Colonie—Town Bd., Latham Water Dist., Colonie, general contract WW exten. to B. Trimpoli, Altamont Ave., Schenectady; pipe, valves, hydrants, to Florence Pipe & Fdry. Co., 400 Chestnut St., Phila., Pa. Total est. $28,000. Bids 9/7. CD 8/23—ENR 8/31.

N. Y., Jamestown—Bd. P. Utilities, replacing 10 in. c.i. watermains, north and south sides E. 2 St., own forces. Over $15,000. C. O. Johnson, supt.

N. Y., Williamsville—Williamsville-Marion Water Dist., Marion, watermain and pumpsta., Sect. 1, furnishing pipe for mains, to Hunting Co., Railroad St., Rochester, $25,296 ***Contr. 2, to Ludlow Valve Co., Adam St., Troy, Contr. 4, to F. C. Keegan, Landing Rd., Rochester, and Contr. 5, to J. M. Orlacker, Williamson, total $20,000***pumping equip. to O'Connell Electric Co., Inc., Mt. Hope Ave., Rochester. Total est. $60,900. Privately financed. CD 8/18—ENR 8/25.

Okla., Erick—Additional dug well, pump, motor and watermain extens., WPA. $30,488. W. H. Sindt, Old Court House, Oklahoma City, engr.

Okla., Oklahoma City—Repairing 42 and 54 in. conduits from Lake Overholser to filter plant, WPA. $30,000.

†Tex., San Angelo—Dpt. Agriculture, Soil Conservation Service, Wash., D. C., water facilities project, terracing, drainage, ditching, levees, earthen reservoirs, for stock, etc., day labor. $100,000 or more.

†Tex., Spur—Dpt. Agriculture, Soil Conservation Service, Wash., D. C., water facilities project, ditching, drainage, terracing, levees, installing windmills, water wells, pumps, building earthen tanks for stock, day labor. $70,000.

†W. Va., Huntington—Veterans Administration, Arlington Bldg., Wash., D. C., concrete water reservoir, to Skilken Bros., 44 E. Broad St., Columbus, O. $22,520. Bids 9/12, awarded 9/12. CD 7/20—ENR 7/27.

Ont., London—Utilities Comn., 18 in. c.i. water mains to Gartshore Thompson Pipe